**Capstone Project 1: Factors that make money - Exploratory Data Analysis**

We performed two statistical hypothesis tests on the dataset.

perform two sample test to see whether gender has any impact on making more than $50K. We will perform two sample proportion test using t test.

perform a test to see that whether rich people (making >50K) invest more on stocks than people making less than $50K. We will perform chi-square test for independence.

**Student t test for proportions**

H0: proportion of female making more than $50K is equal to the proportion of male making more than $50K

H1: proportions of both groups making more than $50K is not equal.

Test statistics: -38.5516283138628 and the value of p = 0.000000000

CONCLUSION: We reject the null hypothesis that gender has no impact on making more than $50K.

**Chi-square test for independence**

H0: People invest on stocks is independent of making more than $50K or less than $50K

H1: People invest on stocks is depended on whether they are making more than 50K or not.

Test statistics: 4070.91036806663 and the value of p = 0.000000000

CONCLUSION: We reject the null hypothesis investment on stocks is independent of people making more than $50K or less than $50K